

# SEQUENCE LISTING

<110> Usdin, Ted B.  
Hoare, Samuel R.J.

<120> PARATHYROID HORMONE RECEPTOR LIGANDS

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<151> 2000-06-15

<150> 60/139335

<151> 1999-06-15

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&lt;213&gt; Bos taurus

&lt;400&gt; 13

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&lt;210&gt; 51

&lt;211&gt; 25

&lt;212&gt; PRT

&lt;213&gt; Bos taurus

&lt;400&gt; 51

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Leu Ala Ala Leu Glu Arg Arg His Trp

20 25

&lt;210&gt; 52

&lt;211&gt; 24

&lt;212&gt; PRT

&lt;213&gt; Bos taurus

&lt;400&gt; 52

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1 5 10 15

Leu Ala Ala Leu Glu Arg Arg His

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&lt;210&gt; 53

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&lt;212&gt; PRT

&lt;213&gt; Bos taurus

&lt;400&gt; 53

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tgccagtccc agaactccca gggaggggtg ggaacttga gaagtgggaa gagaacaaa 600  
gagaaagggg acggaagatc cagaaagcgg aacagaagcc caaagagagg gcgaccgaga 660  
cccagcgaga agacagagac taggggtggg ggaaggcggg aggaggggtt ggtggtagtg 720  
gtggtgcggg aaatggacag aaatcagca agggaaagag acacagaaag atagatcccg 780  
agaaaggcgt ggagaggctc gaaaggagtc gttgcagaaa cggattcatt ctttagcaa 840  
cgttattgg gttcttggtg tgcgcctggc catgcgtga gcgctgtggg cggacaagt 900  
catcagactc ggtctcagta cctggggagt ttgaacctg gtgagcagag agacagagac 960  
ccacacagag aacgagagag acagggggag ccggaccgag ccactccacg gactgggcag 1020  
taacggggct tcagttaga ccgcggggag gacaggcggc ggcaagagcg agtctggacg 1080  
cgcggtcacc gcgtctctcc acagcctccg cccccagga cgggcctggg cggatccgc 1140  
cacccccagg ccgcgaggga gcttggcgt ggcgagcagc gcggccttc gggagcgcgc 1200  
gcggttctg gccccctcg agcgcgccca ctggctgaac tcgtacatgc acaagctgct 1260  
ggtgttgat gcgcctgag cgcgtgccc gtcccatct taataaagac catgccctgc 1320  
gctccggact gcgcctggt cctgcgcgac ctgcgtgtgc gttgggttg gggcgcggg 1380  
cttgaaatgg ggggtacaaa agagacacga ctctgtctg gccactctg catctctc 1440  
ctcagtcgcc actctatctt ctctctcaa ttccgtttct ctctgcctgt cttgtccag 1500  
gaagctggct tcttt 1515

<210> 109

<211> 546

<212> PRT

<213> Rattus norvegicus

<220>

<221> VARIANT

<222> (1)...(546)

<223> Xaa = Any Amino Acid

<400> 109

Met Pro Trp Leu Glu Ala Leu Pro Tyr Ile Cys Gly Trp Leu Ile Leu  
1 5 10 15  
Arg Ser Cys Leu Leu Val Gly Ala Gln Leu Asp Ser Asp Gly Thr Ile  
20 25 30  
Thr Ile Glu Glu Gln Ile Val Leu Val Met Lys Ala Lys Met Gln Cys  
35 40 45  
Glu Leu Asn Ile Thr Ala Gln Phe Gln Glu Gly Glu Gly Asn Cys Phe  
50 55 60  
Pro Glu Trp Asp Gly Leu Ile Cys Trp Pro Arg Gly Thr Ala Gly Lys  
65 70 75 80  
Thr Ser Ala Met Pro Cys Pro Ser Tyr Val Tyr Asp Phe Asn His Lys  
85 90 95  
Gly Val Ala Phe Arg His Cys Thr Pro Asn Gly Thr Trp Asp Phe Ile



100                      105                      110  
 His Gly Ser Asn Lys Thr Trp Ala Asn Tyr Ser Asp Cys Phe Leu Gln  
 115                      120                      125  
 Pro Asp Ile Asn Ile Gly Lys Gln Glu Phe Phe Glu Asn Leu Tyr Ile  
 130                      135                      140  
 Leu Tyr Thr Val Gly Tyr Ser Ile Ser Phe Gly Ser Leu Ala Val Ala  
 145                      150                      155                      160  
 Ile Leu Ile Ile Gly Tyr Phe Arg Arg Leu His Cys Thr Arg Asn Tyr  
 165                      170                      175  
 Ile His Leu His Leu Phe Val Ser Phe Met Leu Arg Ala Xaa Ser Ile  
 180                      185                      190  
 Phe Val Lys Asp Arg Val Ala Gln Ala His Leu Gly Val Glu Ala Leu  
 195                      200                      205  
 Gln Ser Leu Val Met Gln Gly Asp Leu Gln Asn Phe Ile Gly Gly Pro  
 210                      215                      220  
 Ser Val Asp Lys Ser Gln Tyr Val Gly Cys Lys Ile Ala Val Val Met  
 225                      230                      235                      240  
 Phe Ile Tyr Phe Leu Ala Thr Asn Tyr Tyr Trp Ile Leu Val Glu Gly  
 245                      250                      255  
 Leu Tyr Leu His Asn Leu Ile Phe Val Ser Phe Phe Ser Asp Thr Lys  
 260                      265                      270  
 Tyr Leu Trp Gly Phe Ile Leu Ile Gly Trp Gly Phe Pro Ala Val Phe  
 275                      280                      285  
 Val Val Ala Trp Ala Val Ala Arg Ala Thr Leu Ala Asp Thr Arg Cys  
 290                      295                      300  
 Trp Glu Leu Ser Ala Gly Asp Arg Trp Ile Tyr Xaa Xaa Pro Ile Leu  
 305                      310                      315                      320  
 Ala Ala Ile Gly Leu Asn Phe Ile Leu Phe Leu Asn Thr Val Arg Val  
 325                      330                      335  
 Leu Ala Thr Lys Ile Trp Glu Thr Asn Ala Val Gly His Asp Met Arg  
 340                      345                      350  
 Lys Gln Tyr Arg Lys Leu Ala Lys Ser Thr Leu Val Leu Val Leu Val  
 355                      360                      365  
 Phe Gly Val His Tyr Ile Val Phe Ile Cys Gln Pro His Ser Phe Ser  
 370                      375                      380  
 Gly Leu Trp Trp Glu Ile Arg Met His Cys Glu Leu Phe Phe Asn Ser  
 385                      390                      395                      400  
 Phe Gln Gly Phe Phe Val Ser Ile Val Tyr Cys Tyr Cys Asn Gly Glu  
 405                      410                      415  
 Val Gln Ala Glu Val Lys Lys Thr Trp Thr Arg Trp Asn Leu Ser Ile  
 420                      425                      430  
 Asp Trp Lys Lys Ala Pro Pro Cys Gly Gly His Arg Tyr Gly Ser Val  
 435                      440                      445  
 Leu Thr Thr Val Thr His Ser Thr Ser Ser Gln Ser Gln Met Gly Pro  
 450                      455                      460  
 Ser Thr Arg Leu Val Leu Ile Ser Ser Lys Pro Ala Lys Thr Ala Cys  
 465                      470                      475                      480  
 Arg Gln Ile Asp Ser His Val Thr Leu Pro Gly Tyr Val Trp Ser Ser  
 485                      490                      495  
 Ser Glu Gln Asp Cys Gln Pro Gln Ser Thr Pro Glu Glu Thr Lys Lys  
 500                      505                      510  
 Gly His Gly Arg Gln Glu Asp Asp Ser Pro Val Gly Glu Ser Ser Arg  
 515                      520                      525  
 Pro Val Ala Phe Thr Ile Asp Thr Glu Gly Cys Lys Gly Glu Ser His  
 530                      535                      540

Pro Ile  
545

<210> 110  
<211> 550  
<212> PRT  
<213> Homo sapiens

<400> 110  
Met Ala Gly Leu Gly Ala Ser Leu His Val Trp Gly Trp Leu Met Leu  
1 5 10 15  
Gly Ser Cys Leu Leu Ala Arg Ala Gln Leu Asp Ser Asp Gly Thr Ile  
20 25 30  
Thr Ile Glu Glu Gln Ile Val Leu Val Leu Lys Ala Lys Val Gln Cys  
35 40 45  
Glu Leu Asn Ile Thr Ala Gln Leu Gln Glu Gly Glu Gly Asn Cys Phe  
50 55 60  
Pro Glu Trp Asp Gly Leu Ile Cys Trp Pro Arg Gly Thr Val Gly Lys  
65 70 75 80  
Ile Ser Ala Val Pro Cys Pro Pro Tyr Ile Tyr Asp Phe Asn His Lys  
85 90 95  
Gly Val Ala Phe Arg His Cys Asn Pro Asn Gly Thr Trp Asp Phe Met  
100 105 110  
His Ser Leu Asn Lys Thr Trp Ala Asn Tyr Ser Asp Cys Leu Arg Phe  
115 120 125  
Leu Gln Pro Asp Ile Ser Ile Gly Lys Gln Glu Phe Phe Glu Arg Leu  
130 135 140  
Tyr Val Met Tyr Thr Val Gly Tyr Ser Ile Ser Phe Gly Ser Leu Ala  
145 150 155 160  
Val Ala Ile Leu Ile Ile Gly Tyr Phe Arg Arg Leu His Cys Thr Arg  
165 170 175  
Asn Tyr Ile His Met His Leu Phe Val Ser Phe Met Leu Arg Ala Thr  
180 185 190  
Ser Asp Phe Val Lys Asp Arg Val Val His Ala His Ile Gly Val Lys  
195 200 205  
Glu Leu Glu Leu Ser Leu Ile Met Gln Asp Asp Pro Gln Asn Ser Ile  
210 215 220  
Glu Ala Thr Ser Val Asp Lys Ser Gln Tyr Ile Gly Cys Lys Ile Ala  
225 230 235 240  
Val Val Met Phe Ile Tyr Phe Leu Ala Thr Asn Tyr Trp Ile Leu Val  
245 250 255  
Glu Gly Leu Tyr Leu His Asn Leu Ile Phe Val Ala Phe Phe Ser Asp  
260 265 270  
Thr Lys Tyr Leu Trp Gly Phe Ile Leu Ile Gly Trp Gly Phe Pro Ala  
275 280 285  
Ala Phe Val Ala Ala Trp Ala Val Ala Arg Ala Thr Leu Ala Asp Ala  
290 295 300  
Arg Cys Trp Glu Leu Ser Ala Gly Asp Ile Lys Trp Ile Tyr Gln Ala  
305 310 315 320  
Pro Ile Leu Ala Ala Ile Gly Leu Asn Phe Ile Leu Phe Leu Asn Thr  
325 330 335  
Val Arg Val Leu Ala Thr Lys Ile Trp Glu Thr Asn Ala Val Gly His  
340 345 350  
Asp Thr Arg Lys Gln Tyr Arg Lys Leu Ala Lys Ser Thr Leu Val Leu

355            360            365  
 Val Leu Val Phe Gly Val His Tyr Ile Val Phe Val Cys Leu Pro His  
 370            375            380  
 Ser Phe Thr Gly Leu Gly Trp Glu Ile Arg Met His Cys Glu Leu Phe  
 385            390            395            400  
 Phe Asn Ser Phe Gln Gly Phe Phe Val Ser Ile Ile Tyr Cys Tyr Cys  
 405            410            415  
 Asn Gly Glu Val Gln Ala Glu Val Lys Lys Met Trp Ser Arg Trp Asn  
 420            425            430  
 Leu Ser Val Asp Trp Lys Arg Thr Pro Pro Cys Gly Ser Arg Arg Cys  
 435            440            445  
 Gly Ser Val Leu Thr Thr Val Thr His Ser Thr Ser Ser Gln Ser Gln  
 450            455            460  
 Val Ala Ala Ser Thr Arg Met Val Leu Ile Ser Gly Lys Ala Ala Lys  
 465            470            475            480  
 Ile Ala Ser Arg Gln Pro Asp Ser His Ile Thr Leu Pro Gly Tyr Val  
 485            490            495  
 Trp Ser Asn Ser Glu Gln Asp Cys Leu Pro His Ser Phe His Glu Glu  
 500            505            510  
 Thr Lys Glu Asp Ser Gly Arg Gln Gly Asp Asp Ile Leu Met Glu Lys  
 515            520            525  
 Pro Ser Arg Pro Met Glu Ser Asn Pro Asp Thr Glu Gly Cys Gln Gly  
 530            535            540  
 Glu Thr Glu Asp Val Leu  
 545            550

<210> 111  
 <211> 40  
 <212> PRT  
 <213> Bos Taurus

<400> 111  
 Ala Val Ser Glu Ile Gln Phe Met His Asn Leu Gly Lys His Leu Ser  
 1            5            10            15  
 Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val His  
 20            25            30  
 Asn Phe Val Ala Leu Gly Ala Ser  
 35            40

<210> 112  
 <211> 39  
 <212> PRT  
 <213> Homo sapiens

<400> 112  
 Ala Val Ser Glu His Gln Leu Leu His Asp Lys Gly Lys Ser Ile Gln  
 1            5            10            15  
 Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile His  
 20            25            30  
 Thr Ala Glu Ile Arg Ala Thr  
 35